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# BRIGHAM YOUNG UNIVERSITY QUARTERLY

CHURCH TEACHERS  
COLLEGE

ANNUAL CATALOGUE

MAY 1, 1910

PUBLISHED BY  
THE BRIGHAM YOUNG UNIVERSITY  
PROVO, UTAH

## UNIVERSITY CALENDAR.

1910.

September 15, 16, 17, Thursday, Friday and Saturday. **ex-**  
amination and registration.

September 19, Monday, class work begins.

October 17, Celebration of Founder's day.

November 24 and 25, Thanksgiving recess.

December 23, Friday evening, Christmas vacation begins.

1911.

January 9, Monday morning, holiday vacation ends.

January 27, Friday, first semester ends.

January 30, Monday, second semester begins.

February 12, Lincoln's Birthday. (Special program.)

February 22, Washington's Birthday. (Special program.)

April 1-11, Spring vacation.

April —, Arbor Day.

June 9, Friday morning, thirty-fifth annual commencement.

# Church School Officers.

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## GENERAL CHURCH BOARD OF EDUCATION.

JOSEPH F. SMITH,	RUDGER CLAWSON,
WILLARD YOUNG.	CHARLES W. PENROSE,
GEORGE H. BRIMHALL,	HORACE H. CUMMINGS,
ANTHON H. LUND,	ORSON F. WHITNEY,
JOHN HENRY SMITH,	
HORACE H. CUMMINGS,	
General Superintendent of Church Schools.	

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## CHURCH BOARD OF EXAMINERS.

HORACE H. CUMMINGS,	JAMES H. LINFORD,
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## AUTHORITIES OF THE UNIVERSITY.

### BOARD OF TRUSTEES.

JOSEPH F. SMITH, Prest.	REED SMOOT,
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WILSON H. DUSENBERRY,	STEPHEN L. CHIPMAN,
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JOHN HENRY SMITH,	JONATHAN S. PAGE, JR.
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### EXECUTIVE COMMITTEE.

JESSE KNIGHT, Chairman.	W. H. DUSENBERRY,
REED SMOOT,	LAFAYETTE HOLBROOK,
JONATHAN S. PAGE, JR.	

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### VISITING COMMITTEE.

SUSA YOUNG GATES,	STEPHEN L. CHIPMAN,
JESSE KNIGHT.	

# University Council.

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GEORGE H. BRIMHALL, B. Pd., D. Sc. D., President  
JOSEPH B. KEELER, D. B., M. Ac., First Counselor.

EDWIN S. HINCKLEY, B. S., Second Counselor.

HENRY PETERSON, A. M.

Dean of the Teachers' College.

EDWARD H. HOLT, B. Pd., Secretary.

JOHN E. HAYES, Registrar.

JAMES L. BROWN, B. S.,

Principal Normal School.

ANTHONY C. LUND,

Head of Music Department.

ELBERT H. EASTMOND, B. Pd.,

Head of Art and Manual Training Department.

AMOS N. MERRILL, B. S., M. S.,

Head of Agricultural Department.

WILLIAM H. BOYLE,

Head of Sub-High School Department.

JOHN C. SWENSON, A. B.,

JOSEPH PETERSON, S. B., Ph. D.

ALFRED OSMOND, A. B.

JAMES L. BARKER, A. B.

WM. F. WARD, B. S.

RALPH V. CHAMBERLIN, Ph. D.

CHARLES E. MAW, A. B.

CHESTER SNOW, A. B.

W. H. CHAMBERLIN, A. M.

VILATE ELLIOTT, B. Pd.

O. W. ANDELIN, B. Pd.

E. L. ROBERTS,

# The Faculty.

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## PROFESSORS.\*

GEORGE H. BRIMHALL, B. Pd., D. Sc. D.,  
**President.**

JOSEPH B. KEELER, D. B.,  
**Theology.**

O. W. ANDELIN, B. Pd.,  
**Foreign Languages.**

EDWIN S. HINCKLEY, B. S.,  
**Geology.**

JAMES L. BROWN, B. S.,  
**Education.**

ANTHONY C. LUND,  
**Music.**

ERNEST D. PARTRIDGE, B. S.,  
**Mathematics.**

JOHN C. SWENSON, A. B.,  
**History and Social Science.**

W. F. WARD, B. S.,  
**Mathematics.**

CHARLES E. MAW, A. B.,  
**Chemistry.**

ELBERT H. EASTMOND, B. Pd.,  
**Fine Arts and Manual Training.**

ALFRED OSMOND, A. B.,  
**English.**

CHESTER SNOW, A. B.,  
**Physics.**

\* Names occur in the order of seniority of appointment.

## BRIGHAM YOUNG UNIVERSITY

ELMER E. HINCKLEY, M. D.,\*

Nursing.

JAMES L. BARKER, A. B.,\*

Foreign Languages.

JOSEPH PETERSON, S. B., Ph. D.,

Psychology.

RALPH V. CHAMBERLIN, Ph. D.,

Biology.

HENRY PETERSON, A. M.,

Education.

AMOS N. MERRILL, B. S., M. S.,

Agriculture.

W. H. CHAMBERLIN, A. M.,

Ancient Languages and Philosophy

EUGENE L. ROBERTS,

Physical Education.

## ASSISTANT PROFESSORS.

ALICE REYNOLDS, A. B.,\*

English.

CLAIR W. REID,

Music.

ROBERT SAUER,

Band.

MOSES GUDMUNDSON,

Orchestra.

HARVEY FLETCHER, B. S.,\*

Physics.

CHRISTEN JENSEN, A. M.,

History.

EDWIN H. SMART, B. Pd.,

Horticulture.

ANDREW T. RASMUSSEN, A. B.,

Biology.

## INSTRUCTORS.

MAY WARD, B. Pd.,

Domestic Science.

O. D. CAMPBELL,

Fine Art and Drafting.

\* On furlough.



VILATE ELLIOTT, B. Pd.,

Domestic Art.

RAY PARTRIDGE,

Mathematics.

FRED BUSS,

Physiography.

WILLIAM J. SNOW, A. B.,

History.

C. R. JOHNSON,\*

Music.

C. W. WHITAKER,

Modern Languages.

BESSIE EASTMOND,

Domestic Art.

ALBERT HUIISH,

Wood Work.

HANS ANDERSON,

Iron Work.

#### ASSISTANTS.

G. L. LUKE,

Physics.

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Chemistry.

B. F. LARSON,

Art and Manual Training.

C. H. CARROLL,

Biology.

HYRUM HARRIS,

Geology.

\* On Furlough.

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#### STANDING COMMITTEES.

The President is ex-officio a member of all committees.

**Admission and Graduation.**—Henry Peterson, James L. Brown, Joseph B. Keeler, E. S. Hinckley, Amos N. Merrill, E. H. Eastmond, A. C. Lund.

**Advance Credit.**—James L. Brown, Charles E. Maw, Wm. F. Ward, Christen Jensen, W. H. Chamberlin.

**Library.**—Joseph Peterson, James L. Brown, O. W. Andelin

**Lectures and Socials.**—John C. Swenson, Nellie Schofield, A. C. Lund.

**Student Aid and Employment.**—Earl J. Glade, E. H. Eastmond, Vilate Elliott, E. H. Smart.

**Athletics.**—Alfred Osmond, E. L. Roberts, Henry Rose.

**Petitions.**—E. H. Smart J. E. Hayes, Wm. J. Snow.

**Transportation.**—The Presidency, Secretary, and Alfred Osmond.

**Printing and Advertising.**—Amos N. Merrill, E. H. Holt, E. H. Eastmond.

**Student Body Affairs.**—R. V. Chamberlin, A. T. Rasmussen, E. H. Holt.



# Brigham Young University.

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## HISTORY AND LOCATION.

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At the Founder's day banquet of the year 1896, the initial step was taken toward the founding of a college in the Brigham Young University, then the Brigham Young Academy. By an action of the Board of Trustees the regular course of four years was extended to six by the addition of two years of college work. The degrees then offered were Bachelor of Pedagogy (B. Pd.) and Bachelor of Letters (B. L.), the latter requiring major work in English.

This extension of the course necessitated more room for recitation and laboratory purposes. Immediate effort was consequently put forth to obtain means, by voluntary subscription, for the erection of a new building. In the fall of 1897 work was begun and in the spring of 1898 the College Building was dedicated.

December 1, 1899, the General Church Board of Education segregated the lines of college work of the church schools, apportioning to the Brigham Young Academy, theology, English, general pedagogy, including normal training, domestic arts, and mechanical, civil, electrical, and mining engineering. The degrees offered were now to be Bachelor of Pedagogy and Bachelor of Science (B. S.)

On Founder's day, 1903, the name of the institution was formally changed from the Brigham Young Academy to the Brigham Young University, and in the year 1906 and 1907, one year was added to the college course, and the degree Bachelor of Arts (A. B.) was substituted for all other degrees.

The pressing need in Church educational institutions seemed to be the establishment of a Teachers College. Consequently, by an action of the General Board of Education, on February 11, 1909, the college of the Brigham Young Uni-

versity at Provo became the Church Teachers College. The Maeser Memorial Building, in course of erection on Temple hill for the use of this college, is beautifully situated at the foot of the Wasatch mountains, thus affording a most inspiring view of the valley below and of Utah lake in the distance.

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## SCHOOL SOCIETIES.

### THE STUDENT BODY.

This is an organization effected by the students themselves. Aside from its general purpose as a voice medium of the student body in their relation to other schools, it is a powerful adjunct to the Domestic organization in maintaining proper order and decorum.

### POLYSOPHICAL SOCIETY.

For a number of years it has been the policy of the institution to offer to the students a series of lectures by distinguished men from abroad. The necessity for thus coming in contact with the larger life and thought of the world is apparent to all. To supply this need is the function of the Polysophical Society. Formerly its chief aim was to present miscellaneous programs by local talent. It has, however, gradually evolved into a lecture bureau for supplying the University with the best talent obtainable, not only from home, but also from abroad.

### DEBATING SOCIETIES.

Two debating societies are organized in the University, the Athena and the La Junta. Only fourth-year students of the secondary schools and college students are eligible to membership. The La Junta is limited to thirty members and the Athena to twenty-four. The students who represent the University in the intercollegiate debates are chosen from these societies.

### ART SUPERVISION ASSOCIATION.

This organization consists of teachers of fine and applied arts who are graduates of this institution, and are in the practical field of work; also of prospective graduates of the College or High School art students. The purpose is to further the interests of the profession.

### MASTERBUILDER CLUB.

This organization has been established for the benefit of students having special talent in any phase of fine and applied art. Students become life members on entrance and remain such as long as advancement is shown by them. During the year lectures on practical application, and on other topics in connection with arts and trades, will be given by members of the faculty and recognized educators.

### THE LITERARY SOCIETY.

This organization is primarily for the benefit of the classes in English, Elocution, and Literature, though membership is open to all students. The purpose is to cultivate the literary taste of its members, and to furnish opportunity for acquiring facility in public speaking. It is under the control of the department of English.

### THE MUSIC SOCIETY.

This is a society of the students in music, the purpose being to study classic selections. The society meets weekly for an hour's recital by the instructors and leading students in music. Admission to these recitals is free. During the past year the programs have been largely attended by the music-loving people of Provo. Under the auspices of this society, concerts will be given on the second Wednesday evening of each month.

### PRIZES IN PUBLIC SPEAKING.

There have been established at the University the following prizes for contests in public speaking:

1. **The Barton and Blake Gold Medal** for the best Washington's Birthday oration. Awarded last year to Arthur Hafen.
2. **The Jex Gold Medal** for the best oration on any subject. Awarded last year to Percy Craven.
3. **The Kirkham Medals**, given to those students who make the debating team. Awarded last year to Curtis T. Larson, Charles Schwenche, David R. Mitchell, Hugh Woodward, Elmer Miller.

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### CONDUCT OF STUDENTS.

The standards of honor and personal righteousness demanded of good citizens and consistent Latter-day Saints are



required. Within these limits students are given the fullest freedom. Students who fail to conform to these standards either in personal habits or associations are subject to discipline.

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## EQUIPMENT.

### LIBRARIES.

The general library of the University, consisting of over 10,000 bound volumes and some 9,000 pamphlets, is accessible to the members of the Teachers' College. This library has been built up by gifts from various class organizations as well as by contributions from the University.

**Maria Leland Library.**—An event of importance to the library is the formal gift, on April 15, 1908, of the Maria Leland Library by Mr. F. Warren Smith, of California. This collection consists of 1,500 volumes of physics, chemistry, and allied subjects, worth upwards of \$7,000. During the present year an addition has been made of this collection, of about a hundred bound volumes of annals of chemical associations both American and foreign.

**U. S. Depository Library.**—Through the efforts of Senator Reed Smoot, the Government, on May 18, 1908, made the Brigham Young University library a U. S. Depository. This library contains several hundred public documents of value as references in history, sociology, education, economics, agriculture, etc.

**The H. J. Peterson College Library of Education and Psychology.**—During the present year the library has made substantial growth along lines appropriate to a Teachers' College. This growth was stimulated by an action of the H. J. Peterson family in establishing a library of education and psychology. Annual additions of well selected books will be made to this library, the University having agreed to duplicate each year for this purpose the amount added by the Peterson family.

**Periodicals.**—Besides local and state papers, the library contains the leading scientific and literary journals, both American and foreign, of value to the various departments and of general interest to the students.

### THE COLLEGE PHYSICAL LABORATORY.

The rooms used for college physics are favorably situated in the south side of the basement floor, thus affording sunlight for optical experiments and comparative freedom from vibration as well as constant temperature conditions so necessary for accurate physical work. The electrical and magnetic laboratory as well as the dark room for optical work are equipped with massive masonry piers, and heavy slate shelves set into the walls, which are a great convenience in all delicate work requiring absolute freedom from vibrations. For the experimental study of electricity, magnetism, and light the laboratory is exceedingly well equipped, containing galvanometers of every grade and range, volt and ammeters, a large storage battery in a special room, direct and alternating current supply, a complete line of Reichsaustalt standard resistances, a Carey Foster Bridge, quadrant and attracted disc electrometers, a Hartmann and Braun powerful electro-magnet, a precision potentiometer with cadmium standard cells, standards of induction and capacity, earth inductors, electrical tuning forks, magnetometers, etc., spectrometers, a spectroscope, diffraction gratings, Fresnel's mirrors and prisms, a Michelson interferometer, a Geryk vacuum pump, polariscope, and accurate polarimeters with Babinet and Soliel compensators for study of elliptically polarized light, a dividing engine with micrometer microscope, a two-mirror heliostat, wireless telegraphy, X-Ray outfit, etc.

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### THE LABORATORY OF CHEMISTRY.

The rooms used for laboratory work in chemistry are on the basement floor of the High School building. Two rooms are used for storing and compounding chemicals and two for regular experimental work. Each desk contains lockers for the student's materials and is supplied with water and gas. The laboratory for the more accurate chemical analyses is provided with a number of balances varying in sensibility. Four of these are of the highest degree of accuracy. They are mounted on agate bearings and are of the finest workmanship.

In a fifth room is constructed a furnace for work in fire assaying.

### THE LABORATORY OF GEOLOGICAL SCIENCE.

The laboratory and lecture rooms of this department are located on the third floor of the High School building and are admirably adapted for laboratory and study purposes.

The lecture room will comfortably seat 100 students and is provided with maps, charts, models, a mercurial barometer, and a good collection of typical minerals for class room demonstration.

Immediately adjoining the lecture room is the laboratory which is modestly equipped with the most modern and best apparatus for work in physiography, meteorology and geology. The laboratory is provided with gas and water, with an up-to-date system of lockers and storage cases, so that each individual student is provided with all necessary apparatus and a proper place for storing the same.

The laboratory has a large collection of topographic, geologic and soil maps, a collection that is rapidly growing. In the laboratory room there is also a good working library of about 200 bound volumes and several hundred pamphlets, professional papers, and bulletins.

We are provided with a good stereopticon and a large collection of choice slides made principally from our own negatives.

The broad, flat roof of the building furnishes an excellent opportunity for observation, as well as an ideal location for meteorological apparatus, by means of which a complete daily record of weather conditions is kept.

The growth of the museum during the last few years has made it a valuable addition to the department of biology and geological science.

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### BIOLOGICAL LABORATORIES.

The laboratories, supply rooms and museum of the biological department are well lighted rooms, located on the second floor. The laboratories are provided with running water, gas and electricity, student work tables, individual lockers, general supply tables and shelves, aquaria, animal cages, plant boxes, etc. A fish hatchery is maintained in connection with the laboratories by the state. For general work there is a supply of dissecting and compound microscopes of the most recent patterns, camera



lucidas, micrometers, and other accessories. The department possesses sliding and rotary Minot microtomes, incubators, water baths, and a good supply of dissecting dishes, stender dishes, petri dishes, slides and covers, and other glassware; also a high grade microphotographic camera with all the requisite accessories for photographic and lantern slide work, together with a well equipped dark room. The biological collections are rapidly increasing and already furnish ample material for demonstration and special study. Extensive series of prepared slides along embryological and histological lines are available to students for supplementary and special studies. Specially prepared wall charts and wax models, showing the embryological development of various vertebrates, are provided.

For the work in physiology ample equipment has been newly provided. This makes possible the most thorough and modern experimental work. There is a full supply of such apparatus as the following: kymographs, muscle and heart levers, inductoria, chronographs, electric tuning forks, batteries, various types of clamps, electrodes, ergographs, cardiographs, sphymographs, cannulas, ophthalmoscopes, perimeters, test lenses, artificial eyes, haemometers, haemocytometers, centrifuge, maromters, stethographs, stethoscopes, respiratory schemes, water baths, sterilizers, dialyzers, and a complete line of the needful glassware and chemicals.

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### THE PSYCHOLOGICAL LABORATORY.

The psychological laboratory is provided with charts and apparatus for illustrative purposes in lecture work and for the requirements of a year's work in general experimental psychology. Among other things the laboratory contains such valuable instruments as a large electric motor rotator with variable speed, for color mixing, etc.; a Seashore's audiometer, for careful tests of acuity of hearing; a set of Edelmann's resonated tuning forks with some duplicates, a Galton's whistle, etc., for work on tones; Jacquet's graphic chronometer, kymograph, etc.; for accuratte time measurements; Vernier chronoscope, for reaction time experiments; automatograph, memory apparatus, dynamometer, plethysmograph, etc., for experiments on the more complex mental processes. New pieces of apparatus are constantly added as needs require.

### DEPARTMENT OF AGRICULTURE.

The nature of agricultural work takes the student into the field for much of his laboratory work. The great variety of trees, shrubs and grasses, the variation in soil types, the activity in irrigation and drainage, and the interest taken in the development of the live stock industry in the vicinity of the University, together with the demonstration plot of ten acres on the college campus on which the student may carry on experiments, give ample facilities for thorough work. In addition to the above, the department laboratory is equipped with apparatus necessary to conduct experiments in soil physics, and to do systematic work in crop judging, horticulture, agricultural bacteriology and entomology.

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### LABORATORIES OF APPLIED ARTS.

The laboratories of the various applied arts and manual training are provided with all necessary equipments for the courses offered. In the iron and woodwork shops electric power is provided to run the lathes, saws, etc.

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### THE ART STUDIO.

Much careful attention has been given to the selection and collection of nature specimens, casts, still-life, textiles, and other equipment necessary for the courses. The furniture is carefully adapted to the students' needs.

The loans of E. H. Eastmond comprise an extensive and valuable collection of photographs, reproductions of paintings and motif matter in print form; a collection of stereopticon lantern slides on the history of art and kindred subjects, of still-life and textiles, of reference books on arts, crafts, etc., and a collection of authorized models in the various lines of fine and applied arts.

The department is collecting all the works of art possible and has now in its possession various pieces of rare value.

Appropriate cases are provided for students' use in keeping their work.

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**FEES AND EXPENSES.**

An annual registration fee, \$15.00.

**Laboratory Fees for each Semester:**

General Chemistry, \$5.00.

Organic Chemistry, \$5.00.

Quantitative Analysis, \$5.00.

Qualitative Analysis, \$5.00.

Assaying, \$10.00.

Physics, \$2.00.

Mineralogy, \$2.00.

Economic Geology, \$2.00.

Woodwork, \$3.50.

Iron Work, \$3.00.

Botany, \$2.00.

Zoology, \$2.00.

Physiology, \$2.50.

Studio Work, 50c to \$2.50.

Drawing, 50c.

Dressmaking, \$1.50.

Domestic Art, 50c.

Domestic Science, \$2.50.

Shop Work, 50c.

Fine Art, 50c to \$2.50.

Applied Art, 50c to \$2.50.

Drafting, 50c.

Special Examination Fee, \$1.00.

**Graduation Fee, \$10.00**—to be paid not later than ten days before graduation.

# Church Teachers College.

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## ADMISSION AND GRADUATION.

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### ADMISSION

Students are either (1) regular or (2) special.

1. To enter as a regular student the candidate must have completed a four-year high school course or its equivalent; or he must pass examinations in a sufficient number of the subjects outlined below to make fifteen units of credit.

The fifteen units presented for entrance should include: English, 2 units; mathematics or history and civics, 2 units; science or modern language, 3 units; elective, 8 units. The list of studies from which electives may be offered is found below.

A unit represents the credit given for five prepared lessons per week of not less than forty-five minutes' length throughout the year.

2. Candidates who are of mature age, and who show ability to pursue special work, are admitted as special students on recommendation of the professor of a department. Any special student may be enrolled as a regular student on fulfillment of the requirements for admission.

Following is a list of subjects from which the elections may be chosen. The units indicate the amount of credit allowed for each subject:

English .....2 units			
Botany .....	$\frac{1}{2}$ or 1 unit	Astronomy .....	$\frac{1}{2}$ unit
Zoology .....	$\frac{1}{2}$ or 1 "	Chemistry .....	1 "
Physiography ...	$\frac{1}{2}$ "	Physics .....	1 "
Physiology .....	$\frac{1}{2}$ or 1 "	Higher Algebra ..	$\frac{1}{2}$ "
Geology .....	$\frac{1}{2}$ "	Solid Geometry ..	$\frac{1}{2}$ "



Trigonometry ...	$\frac{1}{2}$ unit	Agriculture .....	$\frac{1}{2}$ "
American History and Civics ....	1 "	Music .....	$\frac{1}{2}$ "
English History..	$\frac{1}{2}$ or 1 "	Manual Training..	$\frac{1}{2}$ "
Ancient History..	1 "	German .....	1, 2 or 3 units
Modern History..	1 "	French .....	1, 2 or 3 "
Domestic Science		Spanish .....	1, 2 or 3 "
or Art .....	$\frac{1}{2}$ "	Latin .....	1, 2 or 3 "
		Greek .....	1, 2 or 3 "

The work done in each of these subjects should be equivalent to that outlined in the High School division of this institution. Other subjects than those here named may be accepted, provided evidence is furnished that the work in them has been thorough and of a sufficient amount.

### ELECTION OF STUDIES.

The elective system prevails in the College. The student, in electing his studies, should first select his major course, and then under the advice and with the approval of the major professor, select such other studies as are desirable. The major and minor requirements for graduation should be kept in mind in choosing studies.

The major study should generally be followed during the four years of college attendance. Studies should, if possible, be taken in the year and in the order in which they are found in the catalogue.

Fifteen hours per semester is the normal work, but students may, with the approval of their major professor, elect eighteen hours.

All "conditions" imposed for incomplete or unsatisfactory work in any course must be raised within a year of the date of such "conditions," or claims for credit will be denied. A fee of \$1.00 will be charged for all special examinations to remove "conditions."

### GRADUATION.

Students who have completed 120 hours of college work, and who have satisfied major and minor requirements, may receive the degree of Bachelor of Arts (A. B.)

The candidate must present at least twenty-five hours in the department in which his major work is done, and ten hours of collateral or minor work. In addition to this, English 1 is required of all candidates.

Each candidate for graduation must present to his major professor an acceptable paper of not fewer than three thousand words on some subject in which he has done independent work. Credit may be given for the work on this paper varying in amount according to the extent and quality of the work done.

The recommendation of the department in which the student elects his major work is necessary to graduation, the major professor acting as his advisor in all matters pertaining to his educational work.

The following departments, from which students may elect their major work, have already been organized: Theology and Religion, Education, Psychology and Philosophy, English, Modern Languages, Ancient Languages, Mathematics, Biology, Geology, Chemistry, Physics, History and Social Science, Fine and Applied Arts.

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## DEPARTMENT OF THEOLOGY AND RELIGION.

Joseph B. Keeler, Professor of Theology and Religion.

President G. H. Brimhall.

Alfred Osmond, Professor of English.

W. H. Chamberlin, Professor of Ancient Languages and of Philosophy.

Henry Peterson, Professor of Education.

Joseph Peterson, Professor of Psychology.

1. History of Christianity.—Some of the important subjects treated in this course are: Rise and propagation of Christianity; origin and growth of the papacy; the monastic system; growth and suppression of heresies; scholasticism and the Renaissance; the Protestant Reformation and the rise of religious sects; examination of lives of important religious reformers; growth of religious liberalism and toleration; influence of Christianity on evangelism, charities and general philanthropy; present status of Christendom. Three hours, throughout the year (every year).

(Professor Henry Peterson.)



**2. The Prophets of Israel.**—The character and message of the leading prophets. A critical study of the book of Amos. The training of Israel for the coming of Christ and for becoming his witnesses to the world. Three hours, throughout the year (1911-1912).  
(Professor W. H. Chamberlin.)

**3. Life of Christ.**—A brief outline of New Testament times in Palestine. The sources for the study. The life of Jesus to the time of his call to the active ministry. The principles that guided him in his active ministry as shown in the account of his temptations. The active ministry. Its central aim. The teachings and miracles. The suffering and voluntary death. The resurrection and the ascension. Throughout the course the aim will be to increase faith in Jesus as the revealer of the fullest life and as the Son of God through an active appreciation of his character as it manifests itself in his deeds and teachings. Three hours, throughout the year (1910-11).

(Professor W. H. Chamberlin.)

**4. Ecclesiastical Sociology.**—This course will deal with the church as an agency in social progress and reform. Various church institutions will be studied in their relations to social effort and progress. The method will include lectures, discussions, assigned topics and readings. Three hours, throughout the year (1911-12).

(President Brimhall.)

**5. Psychology of Religion.**—(1) A broad study of the religious impulse as manifested in the various stages of human development, both racially and individually; phenomena of religious awakening and their relations to normal and abnormal religious growth. (2) A consideration of the forms into which this common impulse or motive becomes differentiated under various conditions of environment, and a study of the "objects" of the different types of the religious consciousness. The idea of God and his relation to the individual life. Readings, reports, and discussions. At least six carefully prepared papers will be required of each student. Three hours, throughout the year.

Prerequisite, General Psychology. Genetic Psychology, is also recommended as preparation for this course.

(Professor Joseph Peterson.)

**6. Philosophy and Religion.**—The history of philosophy is traced in outline, and an exposition of at least one representative system is given. A comparative study of natural and re-

vealed religion. The following are some of the fundamental problems discussed: Free Agency, Personal Liberty and Social Restraint, Conditions of Happiness, and the Agencies of Redemption. Three hours, throughout the year. (Professor Osmond.)

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## DEPARTMENT OF ENGLISH.

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Professor Osmond.

Assistant Professor Reynolds.

Mr. \_\_\_\_\_

1. **Rhetoric and Composition.**—Daily themes, conferences, lectures, and prescribed reading. Required of all candidates for the degree of Bachelor of Arts. Three hours, throughout the year. Six hours credit.

2. **Composition and Literature.**—Oral and written composition, conferences, lectures, and prescribed reading. This course is required of all students who elect thier major in the English department and is recommended to all students who are doing special work in English. English 1 required. Three hours, throughout the year. Six hours credit.

3. **Public Speaking.**—This course aims at the training of students in all forms of public speaking, special attention being given to debating and oratory. Three hours, throughout the year. Six hours credit.

5. **English Literature from Wordsworth to Tennyson.**—Intensive studies in Wordsworth, Coleridge, Byron, Shelly and others. Lectures, prescribed reading, and weekly papers. Three hours, throughout the year. Six hours credit.

6. **Milton.**—Milton's minor poems and several books of Paradise Lost are carefully studied. Two hours, first semester. Two hours credit.

7. **The English Drama.**—A study of the English drama from the Miracle Plays to the closing of the theatres. Three hours, second semester.

8. **Shakespeare.**—In this course five or six of the great plays of Shakespeare are read in class. Special attention is given to the interpretation of difficult passages. While the primary purpose of the course is to make the student familiar with Shakespeare, it is believed that a compliance with its prescribed requirements involves the ability to understand and appreciate Elizabethan literature in general. The course is so arranged that it may be taken in two successive years. Three hours, throughout the year. Six hours credit.

9. **Shakespeare.**—Continuation of 8. Three hours, throughout the year. Six hours credit.

10. **Chaucer.**—In this course many of the Canterbury Tales are read in class. The student is carefully drilled in Chaucer's pronunciation, and special attention is given to the interpretation of the text. Two hours, throughout the year. Four hours credit.

11. **English Literature.**—The history and development of the English novel. Two hours, throughout the year. (Not to be given in 1910-1911.)

12. **American Literature.**—Two hours, throughout the year. Three hours credit.

13. **Philology.**—The history and development of the English vocabulary. A comprehensive study of the ways of words and the development of English grammar. Second semester. Three hours credit. (Not to be given in 1910-1911.)

14. **Anglo-Saxon.**—The work of this course is based on Bright's Anglo-Saxon Reader. Two hours, throughout the year. Four hours credit.

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## DEPARTMENT OF ANCIENT LANGUAGES.

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Professor W. H. Chamberlin.

### HEBREW.

1. A study of the grammatical principles of the language in connection with the reading of Genesis 1-8, and portions of the



books of Samuel. A vocabulary of five hundred important Hebrew words is acquired. Three hours, throughout the year.

2. A study of syntax in connection with the reading of selections from the prophets. Memorizing of Isaiah 53 and of several psalms. Two hours, throughout the year.

### GREEK.

1. A study of Gleason's Greek Primer; the first book of the Anabasis. Four hours, throughout the year.

2. The second and third books of the Anabasis; books one, two and three of the Illiad. Three hours, throughout the year.

3. Selections from Xenophon's Memorabilia; Plato's Apology and Crito. Three hours, throughout the year.

4. A study of New Testament Greek in connection with the reading of the Gospel of Mark. Course 1 is a prerequisite. Three hours, first semester.

5. Translation and study of Paul's letter to the Romans. Three hours, second semester.

### LATIN.

1. Cicero's orations against Catiline and the oration for Archias. Three hours, throughout the year.

2. Aeneid of Virgil; six books are read. Three hours, throughout the year.

3. Cicero's De Amicitia; selections from Livy's Roman History; Odes of Horace. Three hours, throughout the year.

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## DEPARTMENT OF MODERN LANGUAGES.

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Professor Barker.

Professor Andelin.

Instructor Whitaker.

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Students taking French are invited to join the French Club and those taking German, the German Club. Students, French and German residents of Provo, returned missionaries from French and German speaking countries, and others interested

in these languages form the membership of the clubs. Their purpose is mainly social; however, from time to time, non-members address the clubs on the customs, life, manners, and literature of these foreign countries. The clubs will alternate in meeting every Saturday from five o'clock until half past six.

In the modern language work, translation is avoided, exercises for class and home work being in one language only. Students think directly in the new tongue, and it is used as the instrument of study.

### GERMAN.

1a. Newson's First German Book; Newson's German Reader; Hoelzel's Wall Pictures. Five hours, throughout the year.

2a. Kron's German Daily Life. Heyse's Schul-Grammatik; Hoffmann's Woerterbuch der Deutschen Sprache; and nineteenth century classics. Five hours, throughout the year.

1. Advanced conversation and composition based on study of German life and culture and the reading of prose works. One hour, throughout the year.

2. Study of masterpieces of German literature. Hoffmann's Woerterbuch and German school editions of the classics used. German works on literary criticism used for reference and outside reading. Four hours, throughout the year.

3. Vogt & Koch, Literature Geschichte. Representative classics. Three hours, throughout the year.

4. Thorough study of some one period with reading and analysis of works. This course varies from year to year and may be taken more than once. Three hours, throughout the year.

5. Phonetics and methods of teaching language. One hour, throughout the year.

### FRENCH.

1a. Newson's First French Book; Newson's Second French Book; Hoelzel's Wall Pictures. Five hours, throughout the year.

2a. Newson's Features of French Life, I and II; Ange's Grammaire Francais; Benard's Dictionnaire Francais. Five hours, throughout the year.

1. Histoire de la Litterature Francaise by Doumic. Reading and discussion of representative masterpieces of last three centuries. Advanced composition, diction and style. Five hours, throughout the year.

2. A detailed study of some one period. The beginnings and development of the literature of the period will be studied, and the masterpieces of each important author will be read and discussed. This course varies from year to year and may be taken more than once. Five hours, throughout the year.

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## DEPARTMENT OF MATHEMATICS.

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Professor Ward.

Professor Partridge.

Instructor Partridge.

1. Trigonometry.—Three hours, first semester.
  2. Analytic Geometry.—Five hours, second semester.
  3. Calculus.—Five hours, throughout the year.
  4. Differential Equations.—Three hours, first or second semester.
  5. Solid Analytic Geometry.—Three hours, first or second semester.
  6. Projective Geometry.—Five hours, first or second semester.
  7. Quaternions.—Two hours, first or second semester.
  8. Advanced Algebra.—Four hours, first or second semester.
  9. Theory of Functions.—Five hours, first or second semester.
  10. Mechanics.—Five hours, throughout the year.
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## DEPARTMENT OF HISTORY AND SOCIAL SCIENCE.

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Professor Swenson.

Associate Professor Jensen.

Instructor Snow.

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### HISTORY.

1. American Colonial History.—From the discovery of Amer-



ica to 1750. A study of the problems of discovery, exploration, and colonization.

Four hours, first semester (1911-1912).

2. **United States History.**—The period from 1750-1817. The European conflicts for colonial territory. The causes and results of the American Revolution. The "Critical Period" and the formation of a national constitution. Federalist Supremacy and downfall. Expansion of the Republic.

Four hours, second semester (1911-1912).

3. **United States History.**—The period from 1817-1860. This course considers the "Rise of the New West," the economic, political, and moral phases of slavery, and the constitutional questions arising therefrom. Four hours, first semester (1910-1911).

4. **Civil War and Reconstruction.**—A study of the readjustment of the nation to its equilibrium after the Civil War. Alternated with History 2. Four hours, second semester (1910-1911.)

5. **History of England to 1603.**—This course will deal with the political, social, and constitutional history of England. Three hours, first semester (1910-1911).

6. **History of England Since 1603**—Three hours, second semester (1910-1911).

7. **The French Revolution and the Napoleonic Period.**—A study of the causes, constitutional and social experiments of the French Revolution, with an examination of Napoleon's career. Three hours, first semester (1911-1912).

8. **History of Continental Europe Since 1814.**—An examination of the rule of Metternich, the development of Liberal opposition, the revolutions of 1820, 1830, and 1848, the unification of Italy, and the establishment of the German Empire. To conclude with a survey of present European conditions. Three hours, second semester (1911-1912).

## GOVERNMENT.

1. **Comparative Constitutional Government.**—This course will examine the governments of the United States, England, France, Germany, Austria-Hungary, Switzerland, etc. Attention will be given to the different departments of government, the relations between these departments, organization and influence

of political parties, the judiciary and its relation to the constitution. Four hours, first semester (1911-1912).

2. **Municipal Government.**—This course deals with municipal activities in the United States and in the chief European countries. Some of the more important subjects treated are: The history of municipal growth; municipal functions and activities such as public health and safety, charities, education, municipal improvements, municipal finances; municipal organization; municipal home rule; municipal ownership; municipal politics.

Four hours, second semester (1911-1912).

3. **Government of the United States.**—This course considers the American political system—national and state. The more important subjects studied are: Territorial basis of national life; the people within the United States; American theories of popular government; historical development of American government; citizenship and alien status; suffrage; political parties and their organization; doctrine of two spheres; constitution making; the national legislature; the national executive; the national judiciary; civil service reform; adoption of constitutions; status of territories; foreign relations; departments of state governments, etc.

A good general course in American history is prerequisite.

Four hours, first semester (1910-1911).

4. **Government of England.**—This course aims to give a thorough understanding of English government. Frequent comparisons with American government will be made. Some of the important subjects treated are: The nature of parliamentary government; the crown; the cabinet; the executive departments; the permanent civil service; the House of Commons; relations between the Commons and the Cabinet; the House of Lords; private bill legislation; the party system; the rise and fall of the caucus; local government; relation of central government to local authorities; education; the church; relation of England to the British Empire; the courts of law, etc.

Four hours, second semester (1910-1911.)

### ECONOMICS.

1. **General Principles of Economics.**—A study of the underlying principles governing the production, exchange, distribution, and consumption of wealth. Four hours, first semester (every year).

2. **Money and Banking.**—A study of the principles of money and banking, the exemplification of those principles in the monetary and banking history of the United States, and the study of the present day currency and banking problems in the United States. White's "Money and Banking." Three hours, first semester (1910-1911).

3. **Corporate Industry.**—A study of the history, organization and economic functions of corporations with emphasis upon their relation to our present social order and the problems they present. Four hours, second semester (1910-1911).

4. **Labor Problems and Legislation.**—The labor problem in relation to modern industry; the rise and growth of labor organizations; the development of collective bargaining; industrial arbitration and conciliation; the principle of state interference in industry.

Three hours, second semester (1910-1911).

5. **Economic History of the United States.**—Traces the economic development of the United States through the colonial era, and the period of the industrial revolution and westward movement, and emphasis economic integration and industrial organization.

Three hours, first semester (1911-1912).

6. **Ocean and Railway Transportation.**—Considers the development of the ocean traffic and the American railroad, from the standpoints of history, charter, privileges, capital, service, passenger, freight, express, and mail; relation to the public, and relation to the state.

Four hours, second semester (1911-1912).

7. **Public Finance.**—The science of public finance; the theory of public expenditure; public income and public debts; the preparation of the budget and financial administration.

Three hours, second semester (1911-1912).

8. **Social Economics.**—A general survey of the leading economic, social, and individual causes of social disorder and poverty; methods and principles of modern relief policies; the Charity Organized Society movement, and other current movements for social betterment. Three hours, first semester (1911-1912).

9. **Social Economics (continued.)**—Three hours, second semester (1911-1912).



## DEPARTMENT OF EDUCATION.

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Professor Henry Peterson.

Professor Brown.

Professor Lund.

Assistant Professor Reid

Instructor Johnson.

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**Order of Courses.**—Courses 1 and 2 should be taken in the sophomore year; courses 3 and 4 in the junior year; and courses 5 to 9 in the senior year.

**1. History of Education.**—This course covers the educational theories and practices of the Greeks and the Romans, the decline of pagan and the rise and growth of Christian education, the rise of universities and the great Renaissance. It presupposes a knowledge of general or of Ancient History. Three hours, first semester.

**2. History of Education.**—Continuation of course 1. This course includes a consideration of the origin and growth of secondary and elementary education, the rise and development of science and scientific methods in education and the growth of modern school systems with their institutions and practices. Knowledge of European or Modern History prerequisite. Three hours, second semester.

**3. Principles of Education.**—Courses 1 and 2 should be taken as a preparation. Modern views of the meaning, scope, and aims of education, its methods, means, and institutions, the course of study and the educational value of the respective studies. General psychology prerequisite. Three hours, first semester.

**4. Principles of Secondary Education.**—This course includes a consideration of the aims and scope of secondary education and its relation to the work of the elementary school, the college and the practical activities of life. The program of study of high schools and their administration will receive special consideration. This course should be preceded by, or should par-

allel a course in the psychology of adolescence. Three hours, second semester.

5. **School Organization and Administration.**—The organization of elementary, secondary, and higher educational institutions, their relationship to each other and to social activities, their purposes and programs of study; the administration and supervision of schools in state, city, and rural communities. Three hours, first semester.

6. **School Organization and Administration.**—Continuation of course 5. Three hours, second semester.

7. **Training.**—Educational value of secondary school studies and the principles and general methods of teaching; observation of high school teaching, written reports and discussions. Three hours, first semester.

8. **Practice Teaching.**—Actual practice in teaching will be given in high school studies, usually in those which are in line with the student's major subject. Four hours, second semester.

9. **School Hygiene.**—Consideration of school buildings with respect to heating, lighting, ventilation, sanitation, and location; the hygiene of instruction, fatigue, and recreation, children's diseases, medical inspection of schools, abnormal children, etc. Three hours, first semester.

10. **Education of Abnormal Children.**—The causes of juvenile delinquency and social treatment of juvenile offenders; the education of dullards and other backward or abnormal children, etc. Three hours, second semester. (Not given in 1910-11.) Credit for this course will be given in the department of social sciences.

### NORMAL COURSES IN MUSIC.

1. **Harmony.**—Modulation, secondary seventh chords, chromatic passing tones, mixed chords. (This course corresponds with Harmony c of the High School.) Three hours, first semester.

2. **Harmony.**—Altered chords, enharmonic changes, suspensions, retardations, appoggratura, embellishment, organ point, harmonizing florid melodies, figured chorale, analysis. (Corresponds with Harmony d of High School.) Three hours, second semester.

3. **Difficult Quartette and Chorus.**—This course corresponds with Vocal Music e of the High School. Three hours, first semester.

4. **Opera.**—Selections from oratorio and opera. This course corresponds with Vocal Music f of the High School. Three hours, second semester.

5. **Concert Orchestra.**—Continuation of Orchestra c in the High School. Two hours, second semester.

6. **Normal Methods.**—Designed especially to aid grade teachers in their vocal work. Rudiments. Tonal tendencies in major and minor intervals; pitches, triads, signatures, dynamics, rhythms, note reading, and simple melody writing. One hour, first semester.

7. **Normal Methods.**—Course 6 required. Note reading, sight singing, decisions of problems involved in proper treatment and training of child voice. Chorus practice, and individual practice in singing songs suitable for primary grades. Methods. One hour, second semester.

\*For additional courses in music see Department of Music in catalogue of Secondary Schools.

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## DEPARTMENT OF PSYCHOLOGY AND PHILOSOPHY.

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Professor Joseph Peterson.

Professor W. H. Chamberlin.

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### PSYCHOLOGY.

Students intending to do work in this department are advised to ground themselves as thoroughly as possible in general biology. The course in neurology is especially designed for the needs of students in psychology.

**General Psychology.**—This course covers in a general way the whole field of normal human psychology. A brief intro-



ductory study of the central nervous system will be made. A series of carefully arranged experiments are worked out. Each student will be required to write three or four papers on special topics, and to keep a carefully written journal of experimental work.

**Texts:** Angell's "Psychology" and Seashore's "Elementary Experiments in Psychology."

Not open to first year students. Four hours, first semester.

**2. Genetic Psychology.**—Biological principles and theories of development; heredity and the comparative importance of nature and nurture; the origin and function in society of the genius, and his relations to the defective; the development of mind in children and youth with comparisons to the animal mind, etc. Practical observations of children's interests and meanings will be made. Several papers reporting results of observations and readings will be required. Prerequisite, course 1. Three hours, second semester.

**3. Advanced Psychology.**—A more technical study of such topics as association, habit, attention, interest, volition, perception, the development of meanings, etc. Much practice is afforded in collecting and organizing data. A number of long, well-written papers are required. Prerequisite, course 1. Three hours, first semester.

**4. Advanced Psychology.**—A continuation of course 3. Three hours, second semester.

**5. Experimental Psychology.**—A laboratory course designed for students intending to specialize in psychology, and aiming to give technique in the methods of investigation. A careful study of the special senses and of some of the more complex processes of consciousness. Six hours laboratory work and two lectures per week. Prerequisite, course 1. Four hours, first semester.

**6. Experimental Psychology.**—A continuation of course 5. Four hours, second semester.

**7. Social Psychology.**—A general study of the development of mind, from social interaction, into the complex forms manifest in modern societies. The nature and growth of the 'self,' suggestibility, mob-mind, fashions, conventionalities, customs, etc. Primitive and modern societies compared with respect to

the operation in them of conservative and reconstructive forces. A series of carefully prepared papers, and reports on special investigations of local conditions, will be required. Three hours, second semester.

**8. The Psychology of Childhood.**—Problems connected with the growth of the child's mind from early infancy to the period preceding adolescence. Individualities and abnormalities will be considered with reference to educational needs. Observation work will supplement the readings and discussions. At least four long papers will be required of each student. The course is designed for superintendents, and for principals and teachers of the elementary schools. Prerequisite, course 1. Three hours, first semester. (Not to be given in 1910-1911.)

**9. The Psychology of Adolescence.**—Problems connected with the physical and mental growth during the period of adolescence. This course is designed especially for principals and teachers of secondary schools. Several papers on special topics will be required of each student during the semester. Prerequisite, courses 1 and 2. Three hours, second semester.

**10. The Psychology of Religion.**—(See Department of Theology and Religion, course 5.)

**Journal Club.**—This organization meets once a week and reviews current research work in psychology reported in American and foreign periodicals. No credit.

### PHILOSOPHY.

The course in General Psychology is a prerequisite for any course in philosophy.

**1. Philosophy of Nature.**—An elementary study of man's place in the world and the function of nature and science in his life. The limits of natural law and evolution. The validity of the moral and religious aspects of experiences. The fullest life and the ideal society. Two hours, throughout the year.

**2. Logic.**—A study of the nature of the process of thinking and its relationship to our perceptual activities. Good and bad ways of thinking. The limits of Logic. Three hours, first semester.

**3. Ethics.**—The organization of our activities in the process of adjustment to our environment. The nature and growth of

the ought and its variation in prudential, ethical and religious action. Place of faith and love in life. The virtues. Freedom and the organization characteristic of the fullest life. Happiness. Three hours, second semester.

4. **History of Philosophy.**—A history and criticism of the various efforts to form an adequate conception of life and the world. Weber's History of Philosophy, Bakewell's Source-Book in Ancient Philosophy, and selections from the writing of modern philosophers will be studied. Three hours, throughout the year.

5. **Theory of Knowledge.**—An advanced study of the knowing process. The conditions of knowledge. Thought and its object. The validity of knowledge. Truth and error. Three hours, first semester.

6. **Metaphysics.**—The world and the nature and place of man within it. Interpretation of nature. The motive and the presuppositions of the sciences. The limits of evolution. The nature of a perfect person and society. The problem of evil. Freedom and immortality. Three hours, second semester.

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## DEPARTMENT OF GEOLOGICAL SCIENCE.

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**Professor Hinckley.**

**Instructor Buss.**

1. **Physiography.**—The work in physiography is designed especially for the preparation of teachers for high school. The most important part of the work is the laboratory and field excursions. The subject matter will be chiefly land forms and their changes. Three hours, first semester.

2. **Meteorology.**—Physiography 1 is a prerequisite to this course. The aim of the course is not only to acquire an accurate knowledge of atmosphere, weather, and climate, but to develop the power to observe and to show the economic importance of weather and weather forecasting. Three hours, second semester.

3. **General Geology.**—This course aims to give an elementary survey of dynamic, structural, physiographic and historical geology and a brief study of minerals, rocks, and fossils. The



course aims also to give the student the extent and nature of the field covered by the study of geology. Excursion and field trips to points illustrating geological processes and forms constitute an important feature of the work. Three hours, throughout the year.

4. **Economic Geology.**—This course is open to students having Geology 3. The course deals (1) with the genesis of ore deposits, their occurrence, associations, and tracing by geologic principles; (2) Building and road making materials, and (3) Soils—their nature and origin. Laboratory and field work is an important factor. Four hours, second semester.

5. **Mineralogy.**—General course in determinative Mineralogy. Three hours, first semester.

6. **Lithology.**—A study of common rocks. Three hours, second semester.

7. **General Study of the Physiography and Geology of Utah.**—The material for this course will be taken from the United States Geological Reports. Three hours, second semester.

#### ASTRONOMY.\*

1. **General Astronomy.**—This course will be a discussion of the general truths of astronomy with simple demonstrations. Occasional experiments will be performed by the students. Requirements: (1) High School Physics. (2) Geometry and Trigonometry. Young's "Manual of Astronomy." Two hours, first semester.

2. **General Astronomy.**—A continuation of course 1. In addition the students will be expected to locate and map out the principal constellations of stars seen in the northern heavens. Course 1 required. Two hours, second semester.

\*Not to be given in 1910-1911.

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### DEPARTMENT OF CHEMISTRY.

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Professor Maw.

Mr. Borg.

1. **General Chemistry.** (Non-metals.)—The principles and theories are considered in detail in connection with the non-



metals. Three recitations and two periods in the laboratory each week. Five hours credit.

2. **General Chemistry** (metals), and elementary qualitative analysis. Five hours credit.

2-A. **Qualitative Analysis**.—A thorough training in the analysis of mixtures for both metallic and non-metallic radicals. Five hours credit.

3. **Elementary Quantitative Analysis**.—Training in gravimetric and volumetric methods. One recitation and eight hours laboratory work, first and second semester. Five hours credit.

4. **Advanced Qualitative Analysis**.—Analysis of minerals and complex cyanides. Five hours credit.

5. **Mineral Analysis**.—Systematic analysis of representative minerals. Texts: Olsen's "Quantitative Analysis," Fresenius' "Quantitative Analysis," and Low's "Technical Methods of Ore Analysis." Five hours credit.

6. **Wet Assaying**.—It is the aim of the course to give a thorough training in practical methods of wet assaying. A large number of checked samples will be analyzed. Furman's "Practical Assaying," and Low's "Technical Methods of Ore Analysis." Three hours, first or second semester..

7. **Assaying**.—Open to students who have completed course 2. Three hours, second semester.

8. **Organic Chemistry**.—The course will take up thoroughly the simpler organic compounds, investigating the chemical behavior, the characteristic reactions and relationship of the different classes of organic compounds. The laboratory work consists in the preparation of the typical carbon compounds. Lectures and recitations three hours a week. Two laboratory periods throughout the year. Ten hours credit.

9. **Water Analysis**.—Two hours.

10. **Food Analysis**.—Two or four hours.

11. **Urine Analysis**.—Two hours.

12. **Physical Chemistry**.—Two hours.

## DEPARTMENT OF PHYSICS.

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**Professor Snow.**

**Assistant Professor Fletcher.**

**Mr. Luke.**

Courses 1, 2, 3 and 4 may be taken in any order. The prerequisites are the same, in each case being trigonometry and high school physics.

1. **General Physics.**—Three recitations and one three-hour laboratory period per week, throughout the year. Eight hours credit.

2. **Heat.**—The laws of thermodynamics and their application to gases, osmotic pressure of solutions, electrolytic cells, kinetic theory of matter, etc. Three lectures and one three-hour laboratory period per week, second semester. Four hours credit.

3. **Light.**—Interference and diffraction of light, double refraction and polarization, relations between light and magnetism. Mann's "Manual of Advanced Optics" is used in the laboratory. Three lectures and two three-hour laboratory periods per week, throughout the year. Ten hours credit.

4. **Electricity and Magnetism.**—The lectures deal with the principles of electricity and magnetism as far as the mathematical limitations of the students permit. The purpose of this course is mainly to give the student a laboratory acquaintance with electrical phenomena. The laboratory work consists of measurements in drop of potential, use of potentiometer, adjustment and use of sensitive galvanometers, calibration of ammeters and voltmeters, accurate measurements of resistances by the use of the Carey-Foster bridge, temperature co-efficient of coils, measurement of the earth's magnetic field, magnetometer and ballistic measurements, determination of magnetic hysteresis, the relative and absolute measurement of capacities, co-efficients of induction and work with quadrant and attracted disc electrometers. Three lectures and two three-hour laboratory periods per week, throughout the year. Ten hours credit.

5. **Advanced Course in Electricity.**—Theory of the potential function, electrostatics, electromagnetism and electrodynamics. Requirements: Integral Calculus. Ten hours credit.

6. **Introduction to Mathematical Physics.**—The mathematical treatment of vibrations, temperature, potential and conduction problems by means of Fourier's Series and Harmonic Analysis. Lectures, problems and written exercises. Requirements, Calculus. Three hours a week, throughout the year. Ten hours credit.

7. **Mechanics.**—Requirements, Calculus. Ten hours credit.

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## DEPARTMENT OF BIOLOGY.

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Professor Chamberlin.

Assistant Professor Rasmussen.

Mr. Carroll.

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## ZOOLOGY.

Of the following courses 2, 5, and 8 will not be given during 1910-1911.

1. **General Course.**—A broad survey of the general morphology, physiology, development, and ecological relations of animals, designed as a foundation in the principles and methods of Zoology. Special attention to local forms and problems. Two lectures and one afternoon in laboratory or field, throughout the year. Three hours, first semester.

1A.—**General Course.**—Continuation of 1. Same requirements. Three hours, second semester.

2. **Vertebrate Zoology.**—Laboratory work with lectures and study of texts, monographs, and special papers on the problems of vertebrate organization and classification. Both living and fossil forms receive attention. Three hours, throughout the year. Six hours credit.

3. **Animal Histology.**—(a) Histology and Microscopy. The theory and manipulation of the microscope and its accessories. Histological methods; cell formation and differentiation; funda-



mental tissues. (b) Organology. Systematic study of the organs with reference to the nature, forms, and arrangement of the constituent tissues. Two lectures and three laboratory periods, first semester. Five hours credit.

4. **Vertebrate Embryology.**—Germ-cells, oogenesis and spermatogenesis, fertilization, types of cleavage and gastrulation. Development of chick to end of fourth day, followed by a systematic study of mammalian embryology, based upon the pig. Two lectures and three laboratory periods, second semester. Five hours credit.

5. **Entomology.**—(a) General insect morphology. First semester. (b) General classification of insects with practice in methods of collection and preservation and consideration of economic relations. Three hours, second semester.

6. **Human Physiology.**—A general course dealing with the fundamental facts and principles of human physiology, development and hygiene. So far as possible, the work is based upon laboratory experimentation and observation. Four hours per week, throughout the year.

7. **Neurology.**—Lectures, reading and laboratory work upon the gross and microscopic anatomy, the development and physiology of the central nervous system and organs of special sense. Designed especially for students of Psychology. Five hours, second semester.

8. **General Principles of Biology.**—Lectures and assigned readings on the general laws and theories of Biology. Fundamental principles of organization and development, nature and origin of sex, the modern theories of heredity and descent, etc. Two lectures per week, throughout the year.

### **BOTANY.\***

1. **General Course.**—A preliminary discussion of plant cytology and physiology, followed by the study in laboratory and class of a series of plants from the principal natural groups from lowest to highest. Three hours, first semester.

1a. **General Course.**—Continuation of 1. Three hours, second semester.

2. **Plant Histology.**—A comparative study of tissues and tissue systems with training in histological technique. Three hours per week, first semester.



3. **Plant Physiology.**—Laboratory and class work upon the physiology of plants. Three hours per week, second semester.

4. **Plant Taxonomy.**—Laboratory and field work upon the morphology and systematic realtions of local flowering plants. Hours and credit arranged with the professor.

\*Courses 2, 3, and 4 will not be given during 1910-1911.

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## DEPARTMENT OF AGRICULTURE.

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**Professor Merrill.**

**Assistant Professor Smart.**

**Agriculture for High School Teachers.**—A knowledge of scientific agriculture is often required of teachers of science in the high schools of Utah and of other states. This course is designed to qualify high school teachers to meet this requirement. It deals with the fundamental principles of the science of agriculture, emphasis being placed on the method of presentation. Two hours per week, throughout the year.

**Note.**—For courses offered in the High School for which college credit may given, see High School catalogue.

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## DEPARTMENT OF FINE AND APPLIED ARTS.

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**Professor Eastmond.**

**Instructor Campbell.**

**Miss May Ward.**

**Miss Elliott.**

**Instructor Huish.**

**Instructor Bessie Eastmond.**

Opportunity is given for higher accomplishment in various lines of the most worthy divisions of the fine, applied and manual arts. Attention is given to environmental possibilities in the

way of materials, influence, and educational value. To be the best teacher in a line of work is to be highly accomplished in that line of work, as well as to know how to teach it in the best way. A close correlation of the mind and hand will promote an all-round development of character and result in acquired skill, self-control and refinement.

### **Fees.**

A 50c equipment fee is charged for each hour of credit, in all the courses of this department, excepting where a material fee is required. For special courses, catalogued under Crafts work, a lesson fee is required.

### **Arts Lectures.**

A series of special lectures is arranged by the director and faculty of the department. General educational ideals of the fine and manual arts are given. Hours arranged with director.

## **FINE ART COURSES.**

### **Pictorial Art.**

1. **Composition and Representation.**—General object-drawing, advanced. Cast drawing. Study of line, dark and light, and principles of picture making. Emphasis placed upon aesthetic expression in representation. Three hours, first semester.

2. **Composition and Representation, continued.**—Life drawing. Study of anatomy, applied. Required, Pictorial Art 1. Three hours, second semester.

3. **Water Color Painting.**—General landscape and still-life representation. Composition. Study of harmony, etc. Three hours, first semester.

4. **Water Color Painting, continued.**—Three hours, second semester.

5. **Illustration.**—Study of the reproduction of illustrations, printing plates, etc., mediums, etc. Pose drawing. Composition. Practical illustration work. Three hours credit, first semester.

6. **Illustration, continued.**—Three hours, second semester.

7. **Oil Painting.**—Objective and subjective landscape. Composition and color study continued. Portraiture and general figure work. Three hours, first semester.

8. **Oil Painting, continued.**—Classic painting and illustration. Study of naturalism and impressionism. Composition continued. Three hours, second semester.

**Note.**—Courses 3, 4, 5, 6, 7, and 8 may be necessarily given under the method of studio work.

### STUDIO WORK.

Outlines of work and other instructions will be given by the director of the department. Special attention is given to individual needs. The studios are becoming fully equipped for all possible courses—both general and individual. The student on entering the studio, of course, pledges earnest work and mutual consideration. The studios are placed into the hands of the workers therein under the educational guidance of the teachers in charge. The opportunities are many for the gaining of knowledge concerning art, both fine and applied. The general criticism method is used. Hours of credit arranged with instructor.

### COURSES IN APPLIED ARTS.

2. **Design, Theory and Practice.**—Styles. Proportion, especially applied to walls, exterior and interior. Color harmony and consistency to purpose. Moral decoration. Lettering. Three hours, first semester.

2. **Theory and Practice, continued.**—Required, drafting 2. Three hours, second semester.

### Crafts Work.

Candidates may elect courses in wood-carving, pyrography, fabric staining and printing, leather modeling and carving, advanced basketry, china painting, etc. Required, Applied Design 1 or 2, as a parallel course. Fees, credits, time, etc., arranged with instructor. First and second semester.

### Domestic Art.

**French-laid Work and Montmellek Embroidery.**—Study of characteristic designs and adaptation. Color study. Requirements, Domestic Art a, Design a and b. (See High School.) Two hours, first semester.

2. **Art Needle Work.**—Advanced work in French-laid and Montmellek embroidery. Roman cut-work. Design and color



application continued. Two hours, second semester.

3. **Art Needle Work.**—Corrickma cross and Limerick lace. Design and color application. Requirements, Domestic Art 1, 2, 3 and 4. Two hours, first semester.

4. **Art Needlework.**—Shaded embroidery. Design application. Requirements: Four courses in Drawing, Design a and b, and Domestic Art g. (See High School.) Two hours, second semester.

#### Shop Work.

Under the direction of the teacher, candidates may elect credit for advanced work done.

#### Drafting.

1. **Descriptive Geometry.**—Problems relating to the point, line, and plane. Surfaces of revolution. Intersection and development of solids. Shades and shadows, especially planned to develop the mental concept. Three hours' recitation and two hours' drawing. Required, Geometry c, Draughting b, and, preferably, Mathematics 1. Five hours, first semester.

2. **Architectural Drawing and Design.**—Study of the ancient and modern styles of architecture. Principles of perspective. Line and wash rendering. Four hours, first semester.

3. **Architectural Drawing and Design.**—Continuation of 2. Invention of design. Drawing of fences, outbuildings, plans of grounds, stores, bridges, dwellings, etc., and a finished drawing. Four hours, second semester.

2a. **Machine Drawing and Design.**—Detail of parts of machines drawn to scale. Designing simple parts of machines. Patent office drawings. Two hours, second semester.

3a. **Machine Drawing and Design.**—Students will design machines complete. Drawings will be made of all details, care being used to make them as they would be made where actual building follows the designing. Two hours, second semester. (May not be given in 1910-1911.)

**Shopwork.**—Outlines of work and instructions will be given by the director of the department. Attention is given by the instructors to the individual needs and qualifications of students. The shops are becoming fully equipped for all possible courses, both general and individual.



### Woodwork.

1. **Advanced.**—Harmony and proportion, plain stair-building, and a general line of practical exercises with instruction in the designing, construction, and finishing of high-grade cabinet work, also sash and door work and joinery. Course d of the High School required, also Design a and b. Eight hours practice through the year, four hours credit.

2. **Advanced.**—Theory of building from drawings with practical illustration in roof-building, in plain and complicated forms, and a general line of carpenter work. Architectural drawing required before completing the course. Eight hours practice each week, throughout the year. Four hours credit.

3. **Advanced.**—General problems in framing. Selection of materials. Laying out work and supervising construction. Shops and buildings will be visited and studied. Two hours, first and second semesters.

**Shopwork.**—Under the direction of the teacher, students may receive credit for advanced work done.

### Ironwork.

1. **Tool and Machine Construction.**—Tempering in connection with tools and machine construction. Advanced work in forging, lathe work and steel work. Finishing. Required, Drafting 1 or 2a. Two hours, first semester.

2. **Machine Construction, continued.**—Continuation of 1. Practical ironing work in connection with vehicles. Correlation work of iron and other materials. Welding, advanced. Required, Drafting 2a or 3a. Two hours, second semester.

Shop Work may be arranged with the Director.

### DRESSMAKING.

The course is designed to fit young women for home work and incidentally for professional work. The designing of dresses is studied from an artistic point of view, giving the opportunity to use originality, good judgment, and taste in adapting fashions to the form. The student is required to study physiology and physical culture as a means of understanding that the costume should be fitted to the well-developed, well-proportioned form, and not the form fitted to the costume.

**1 and 2. Pattern Drafting.**—Tailor-made skirt-waist suits. Designing and making of fine muslin or silk one-pieced dresses made on shirt-waist draught. Two hours credit, throughout the year.

**3 and 4. Pattern Drafting and Models, continued.**—Making of tight-fitting lined dresses. Princess slips. One-pieced dresses. Two hours, throughout the year.

**Note.**—Students in dressmaking will be required to pay a laboratory fee of \$1.50 for each semester; 25c will be refunded at the close of each semester when locker key is returned. This fee is to keep machines in repair, pay for drafting paper, use of lockers, electric iron, tools, dress forms, etc.

**Shop Practice.**—We offer 16 hours credit in practical dress-making. Two or four hours may be taken at a time, and students will be given special individual instruction.

In this department work is done for the public as in regular establishments. The advanced students are allowed to do some of this outside work under the supervision of the teacher and may receive remuneration. Shop fees arranged with director.

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## SUPERVISION COURSES.

**1. Psychology and Method.**—Educational ideals. Study of the possibilities of art training and the various phases of manual training in western schools—qualified by actual experience of the teacher. Consideration of the work of the kindergarten, primary grades, grammar grades, high school, and college. Practicable courses and mediums. Actual experiment work with pupils. Study of art and manual training correlation. Text book used: "Mind and Hand," by Chas. H. Ham. Three hours, first semester.

**2. Psychology and Method.**—Continuation of 1. The making of courses of study. Three hours, second semester.

**Laboratory Work.**—Opportunity is afforded students to elect a certain number of hours' work for the purpose of qualification in Art and Manual Training for elementary and high school supervision and teaching. Special direction, training, and criticism are given. Time and credits arranged with the director of the department.

**1. Theory and Practice of Teaching Domestic Science.—**

This course is designed to present the methods of teaching Domestic Science in elementary and high schools. It includes a consideration of courses of study and the planning and presentation of lessons. The practical work consists in observing, assisting, and teaching classes, the planning of laboratory equipment, and assisting in departmental housekeeping. Two hours, throughout the year.

**2. Food Preparation.—**

This course is intended primarily for students preparing to teach. It deals with the preparation of food materials based on a knowledge of their composition and the chemical changes effected by heat and moisture, and indicates what cooking processes give best results in retaining nutritive principles in most digestible form. Special attention is given to (a) study of methods of preparation best suited to available forms of food materials; (b) study of recipes to determine how to carry out these principles and economize material, fuel, and labor; (c) study of effects of pleasing flavors, attractiveness and variety in serving, and methods of accomplishing these results with a minimum of labor and expense; (d) cost of food and marketing; (e) discussion of materials and recipes suitable for school use. Prerequisites, Domestic Science c. Fees arranged with instructor. Five hours, throughout the year.

**Note.**—Candidates for special normal courses in Woodwork, Design, Drafting, Domestic Art, etc., will consult the director of the department.

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## DEPARTMENT OF PHYSICAL EDUCATION.

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Eugene L. Roberts, Director.

Dr. E. E. Hinckley, Medical Examiner.

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**1. Gymnasium Practice (for men).—**Free-hand, dumb-bell, Indian club, and wand drills; maize running; apparatus work, etc. Four hours per week, throughout the year.

**2. Corrective Gymnastics (for men).—**Prescriptive exercise for physical defectives. Hours per week determined by the director.

3. **Gymnasium Practice (for women).**—Elementary gymnastics, aesthetic dancing, talks on personal hygiene, etc. Four times per week, throughout the year.

4. **Correlative Gymnastics (for women).**—Prescriptive exercise for physical defectives. Hours per week determined by the Instructor for women.

5. **Theory and Practice of Physical Education.**—(Required of all fourth year Normals). School hygiene, sanitation, first aid, physical examination, medical inspection, play, playgrounds, athletics, etc. Lectures, demonstrations, and practice. Two hours per week, second semester.

**Note.**—Active training in any recognized form of athletics will be accepted as a substitute for "a" and "b" during the period of such training.

\*No college credit will be given for any course in this department.



# ENROLLMENT OF STUDENTS 1909-1910

## GRADUATES.

The following students received the Degree of Bachelor of

### Arts:

Jacobs, Irvin .....	Provo
Johnson, James .....	Heber
Larsen, Martin M. ....	Pleasant Grove
Miller, Elmer .....	Spanish Fork
Reynolds, Alice Louise .....	Provo
Rose Henry .....	Provo
Snow, William J. ....	Provo
Williams, Samuel Wm .....	Provo

## JUNIORS.

Ashworth, Paul .....	Provo
Baird, Samuel .....	Provo
Bearnson, Julius .....	Spanish Fork
Borg, Kenneth .....	Mt. Pleasant
Boyle, W. H. ....	Provo
Buss, Fred .....	Provo
Chamberlain, Ellis .....	Provo
Christensen, Homer .....	American Fork
Christensen, John S. ....	American Fork
Gibbons, Andrew S. ....	Provo
Glazier, C. Wilson .....	Provo
Harmon, Levi N., Jr. ....	Price
Haws, George G. ....	Colonia Juarez, Mexico
Holdaway, Hugh .....	Provo
Jensen, Julia B. ....	Provo
Kuno, Henry .....	Tokyo, Japan
Larsen, B. F. ....	Provo
Larsen, Curtis T. ....	Pleasant Grove
Luke, G. L. ....	Beaver
Meldrum, G. Gilbert .....	Provo
Miner, Paul .....	Springville
Mitchell, David R. ....	American Fork
Nelson, Carl O. ....	Provo
Overlade, Arthur .....	Provo
Peterson, Hans J. ....	Hooper
Poulson, Moroni O. ....	Redmond
Reid, H. Lorenzo .....	Burlington, Wyo.
Simmons, Lee .....	Payson
Snell, Heber C. ....	Provo
Taylor, Eli F. ....	Goshen
Thurman, Archie .....	Provo
Whitaker, C. W. ....	Kanosh
Woodward, Hugh M. ....	Provo

## SOPHOMORES.

On account of adding one year to the College course in 1909-1910, making it four years, there is no Sophomore class this year.

## FRESHMEN.

Adams, Anna .....	Parowan
Anderson, Alice .....	Fairview
Bean, Margaret .....	Provo
Berg, Wyman .....	Provo
Brandenberger, Mrs. Leo. ....	Provo
Brimhall, Faun .....	Provo
Brown, Julia .....	American Fork
Carroll, C. H. ....	Provo
Carroll, Elsie C. ....	Provo
Christiansen, Ole .....	Nephi
Clark, Marie .....	Springville
Cooper, Coral .....	Provo
Cox, Elvira .....	Fairview
Dixon, H. Aldous .....	Provo
Eastmond, Bessie .....	Provo
Eggertsen, Bernard S. ....	Provo
Evans, Roy .....	Springville
Evans, Ray .....	Springville
Eyring, Carl F. ....	Colonia Juarez, Mexico
Foster, George W. ....	Provo
Finch, Harold .....	Spanish Fork
George, J. Morrille .....	Provo
Hafen, Arthur .....	Santa Clara
Harris, Hyrum .....	Cardston, Canada
Hill, Reuben .....	Springville
Houtz, Melpha .....	Springville
Hurst, P. Harrison .....	Colonia Dublan, Mexico
Johnson, Juneatta .....	Colonia Diaz, Mexico
Jones, Thatcher C. ....	Byron, Wyo.
Jorgensen, E. Berg .....	Sandy
Kelly, A. L. ....	Brigham City
Lindsay, Elizabeth F. ....	Heber
Luke, Cleo .....	Junction
Martin, Thomas L. ....	American Fork
Monson, Ray .....	Mt. Pleasant
Nixon, J. Wm. Jr. ....	Huntington
Ollerton, J. A. ....	Parowan
Ollerton, Anna .....	Parowan
Palfreyman, Etta .....	Springville
Pettigrew, Leah .....	Nephi
Phelps, Esther .....	Mesa, Arizona
Rasband, Ethel .....	Provo

Richards, Bert L. ....	Fielding
Rigby, Samuel ....	Fairview
Rowland, Hannah ....	Springville
Russell, G. Oscar ....	Conejos, Colorado
Simons, Enos ....	Payson
Smart, Orene ....	Provo
Snow, Beatrice ....	Colonia Juarez, Mexico
Snow, Theresa ....	Colonia Juarez, Mexico
Sorenson, James ....	Elsinore
Straw, Alta ....	Springville
Thomson, Eyring ....	Ephraim
Wanlass, Wm. L. ....	Lehi

